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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,570	07/30/2003	Atsushi Nishio	02410338AA	6464
30743	7590	10/05/2004	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C.			HAMMOND, BRIGGITTE R	
11491 SUNSET HILLS ROAD			ART UNIT	
SUITE 340			PAPER NUMBER	
RESTON, VA 20190			2833	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,570

Applicant(s)

NISHIO ET AL.

Examiner

Brigitte R. Hammond

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 0704 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/7/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed July 7, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the plate being attached to the bottom face of the connector "so as to reinforce the module accommodated in the chamber".

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "memory module" of claim 3 must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. **The objection to the drawings will not be held in abeyance.**

#### ***Claim Objections***

Claim 9 is objected to because of the following informalities: in line 15, change "firs" to - -first- -. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 8 and 9, it is unclear to the Examiner what the bottom "face" is. How is the plate attached to the bottom "face" and how does it reinforce the module accommodated in the chamber? Is the bottom face the bottom plate?

For Examination purposes, the Examiner shall assume that the plate is attached to a bottom portion of the connector, and the portion of the claim referencing the reinforcement of the module was given little patentable weight.

Applicant is required to clarify what subject matter the claim is intended to be drawn to and the language of the claim must be amended to be consistent with this intent.

Claim 8, also recites the limitation "the bottom face" in line 4-5. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Pitou 6,435,882. Pitou discloses a connection structure 10, comprising: a connector 12, having an inner side face defining a chamber formed with an opening and having an outer side face opposed to the inner side face; a module body 14, inserted from the

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opening to be accommodated in the chamber; a first conductive member 54, provided on an outer periphery of the module body 14 which is opposed to the inner side face of the connector in a case where the module body is accommodated in the chamber; and a second conductive member 29, provided on the inner side face of the connector, such that the first conductive member is brought into contact with the second conductive member in a case where the module body is plenarily accommodated in the chamber, and wherein the second conductive member 29 is extended from the inner side face to the outer side face so as to be connected to an external line at the outer side face.

Regarding claim 2, wherein the second conductive member 29 is extended in a direction parallel to an inserting direction of the module body.

Regarding claim 5, wherein an end of the chamber opposite to the opening is made open (not, numbered, see attachment of fig.2A).

Regarding claim 6, wherein at least a pair 22,24 of the second conductive member 29 is arranged on the inner side face of the connector so as to oppose to each other.

Regarding claim 7, wherein the second conductive member 29 has elasticity.

Regarding claim 8, Pitou discloses a plate 14 attached to a bottom portion of the connector.

Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kinoshita 5,360,353. Kinoshita discloses a connection structure, comprising: a connector 60, having a top face and a bottom face opposed to the top face, and having an inner side face defining a chamber 64 communicating a first opening formed in the

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top face and a second opening 62 formed in the bottom face; a module body 75, having a top face and a bottom face opposed to the top face, adapted to be accommodated in the chamber; a first conductive member 76, provided on an outer periphery of the module body which is opposed to the inner side face of the connector in a case where the module body is accommodated in the chamber; and a second conductive member 67, provided on the inner side face of the connector, such that the first conductive member is brought into contact with the second conductive member in a case where the module body is plenarily accommodated in the chamber; wherein the first opening has a same shape as the second opening.

Regarding claim 10, the bottom face of the connector 60 is coplanar with the bottom face of the module body 75 in a case where the module body is plenarily accommodated in the chamber.

***Claim Rejections - 35 USC § 103***

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitou in view of Kim et al. 6,421,250. Pitou discloses the invention substantially as claimed. Pitou is silent regarding the type of module, in particular a memory module. However, connection structures having memory modules are well known in the art as evidenced by Kim et al. Kim et al. disclose a connection structure comprising a connector 211 and a memory module 101. Therefore, it would have been obvious to one of ordinary skill to make the module of Pitou a memory module for use with a computing device as taught by Kim et al. since Applicant stated that the invention can be applied to connectors for attaching various *type* modules (page 10, lines 13-15), (*italiacs mine*).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitou in view of Applicant's Admitted Prior Art (AAPA). Pitou discloses the invention substantially as claimed. Pitou is silent regarding the type of module, in particular a camera module. However, connection structures having camera modules are well known in the art as evidenced by AAPA. AAPA discloses in figures 4A-5D of the instant application, a connection structure comprising a connector 6 and a camera module 1. Therefore, it would have been obvious to one of ordinary skill to make the module of Pitou a camera module for mounting on a camera phone as taught by AAPA, since Applicant stated that the invention can be applied to connectors for attaching various *type* modules (page 10, lines 13-15), (*italiacs mine*).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita in view of Karlovich et al. 5,226,824. Kinoshita does not disclose a plate attached to the bottom surface of the connector. However, Karlovich discloses a connection structure comprising a connector 2 and a module body 80, and a plate 22 attached to a bottom surface of the connector (col. 5, lines 54-56). It would have been obvious to one of ordinary skill to modify the connector of Kinoshita by providing a plate attached to the bottom surface of the connector for removable attachment servicing as taught by Karlovich et al.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***



Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brigitte R. Hammond whose telephone number is 571-272-2006. The examiner can normally be reached on Mon.-Thurs. and Alternate Fridays from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on 571-272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Brigitte R. Hammond  
Examiner  
Art Unit 2833

September 22, 2004